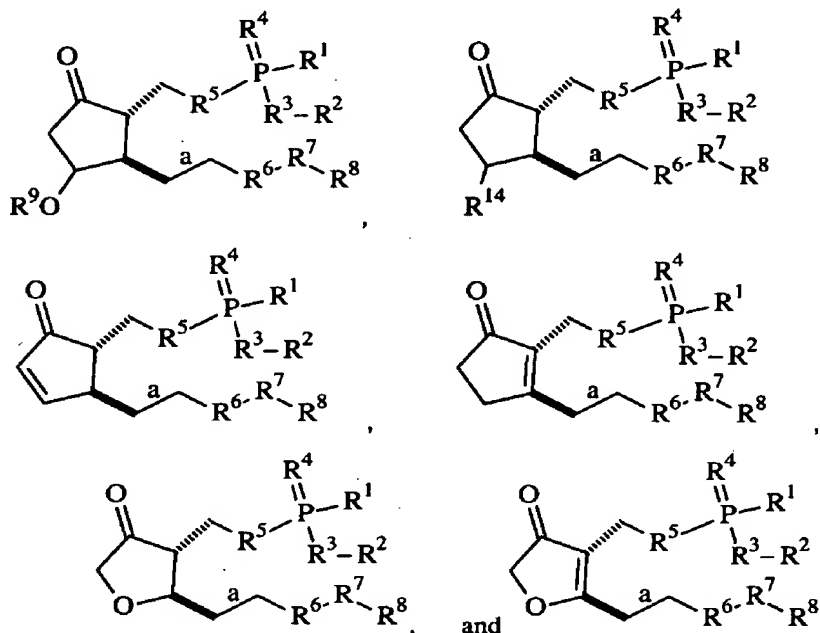


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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) A 2-decarboxy-2-phosphinico prostaglandin derivative having a structure selected from the group consisting of:



wherein bond a is selected from the group consisting of a single bond, a *trans* double bond, and a triple bond;

R¹ is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group having 1 to 4 carbon atoms, and a monovalent heterogenous group having 1 to 4 member atoms, wherein the member atom directly adjacent to P in said heterogenous group is not oxygen;

R² is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group, a substituted monovalent hydrocarbon group, a monovalent heterogeneous group, a substituted monovalent heterogeneous group, a carbocyclic group, a substituted carbocyclic group, a heterocyclic group, a substituted heterocyclic group, an aromatic group, a substituted aromatic group, a heteroaromatic group, a substituted heteroaromatic group, a mono- or polyvalent inorganic cation and a mono- or polyvalent organic cation;

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R^3 is selected from the group consisting of an oxygen atom, a sulfur atom, and NH;

R^4 is selected from the group consisting of an oxygen atom and a sulfur atom;

R^5 is a divalent group selected from the group consisting of a hydrocarbon group, a substituted hydrocarbon group, a heterogeneous group, and a substituted heterogeneous group;

R^6 is nil or a divalent group selected from the group consisting of $-\text{CH}_2-$, $-\text{C}(\text{O})-$ and $-\text{C}(\text{R}^{10})(\text{OR}^{10})-$;

R^7 is nil or a divalent group having the formula $-(\text{CD}(\text{D}))_p-\text{X}-(\text{CD}(\text{D}))_q-$, wherein p is an integer from 0 to 3 and q is an integer from 0 to 3, X is selected from the group consisting of an oxygen atom, a divalent hydrocarbon group, a sulfur atom, SO, SO_2 , and ND, and each D is independently selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms;

R^8 is selected from the group consisting of a hydrocarbon group, a substituted hydrocarbon group, a heterogenous group, a substituted heterogenous group, a carbocyclic group, a substituted carbocyclic group, a heterocyclic group, a substituted heterocyclic group, an aromatic group, a substituted aromatic group, a heteroaromatic group, and a substituted heteroaromatic group;

R^9 is selected from the group consisting of a hydrogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms; and

R^{14} is independently selected from the group consisting of nil, a hydrogen atom, a halogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms

wherein said heterogenous group is a saturated or unsaturated chain containing from 1 to 18 member atoms that comprises at least carbon and one heteroatom and wherein said saturated or unsaturated chain is straight or branched.

Claim 2. (Previously presented) The compound of claim 1, wherein R^1 is selected from the group consisting of a hydrogen atom and a monovalent hydrocarbon group.

Claim 3. (Previously presented) The compound of claim 2, wherein R^1 is a monovalent hydrocarbon group having 1 to 3 carbon atoms.

Claim 4. (Previously presented) The compound of claim 3, wherein R^1 has 1 to 2 carbon atoms.

Claim 5. (Previously presented) The compound of claim 4, wherein R^1 has 1 carbon atom.

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Claim 6. (Previously presented) The compound of claim 2, wherein R^1 is a hydrogen atom.

Claim 7. (Previously presented) The compound of claim 1, wherein R^2 is a hydrogen atom.

Claim 8. (Previously presented) The compound of claim 1, wherein R^3 is an oxygen atom.

Claim 9. (Previously presented) The compound of claim 1, wherein R^4 is an oxygen atom.

Claim 10. (Previously presented) The compound of claim 1, wherein R^5 is a hydrocarbon group having 1 to 5 carbon atoms in its chain.

Claim 11. (Previously Presented) The compound of claim 10, wherein R^5 has a *cis* double bond at position C_5-C_6 .

Claim 12. (Canceled)

Claim 13. (Previously presented) The compound of claim 1, wherein R^7 is selected from the group consisting of $-CH_2O-$, $-CH=CH-$, $-CH=C=CH-$, $-CH_2S-$, $-CH_2CH_2-$, $-CH_2NH-$, $-CH_2NCH_2-$, and $-CH_2O(CH_2)_3O-$.

Claim 14. (Previously presented) The compound of claim 1, wherein R^8 is selected from the group consisting of a methyl group, aromatic groups, substituted aromatic groups, heteroaromatic groups, and substituted heteroaromatic groups.

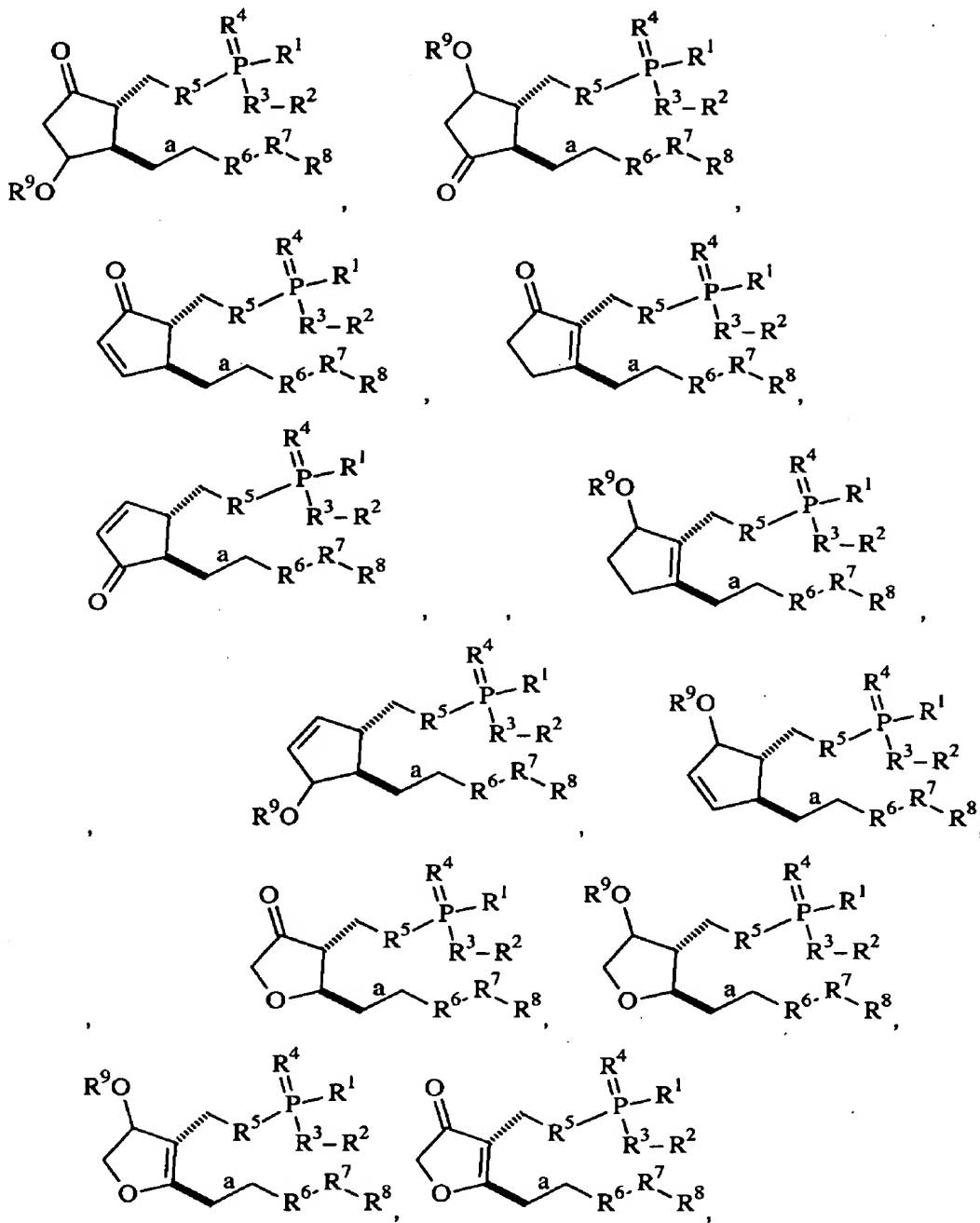
Claim 15. (Canceled)

Claim 16. (Previously presented) The compound of claim 1, wherein bond a is selected from the group consisting of a single bond and a *cis* double bond

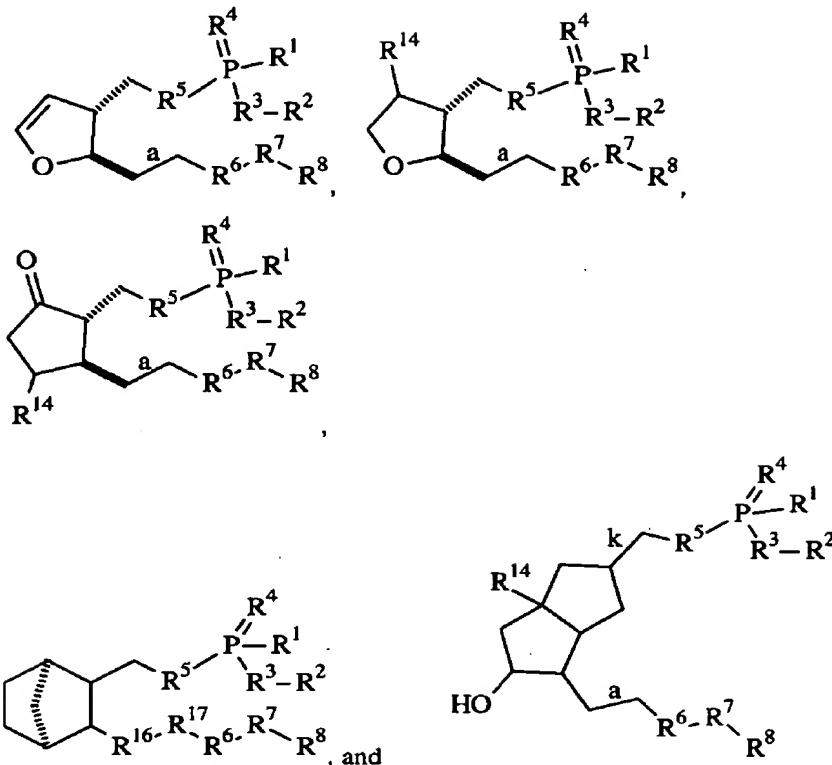
Claims 17-27 (Cancelled).

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Claim 28. (Previously presented) The compound of claim 1, wherein the derivative has a structure selected from the group consisting of:



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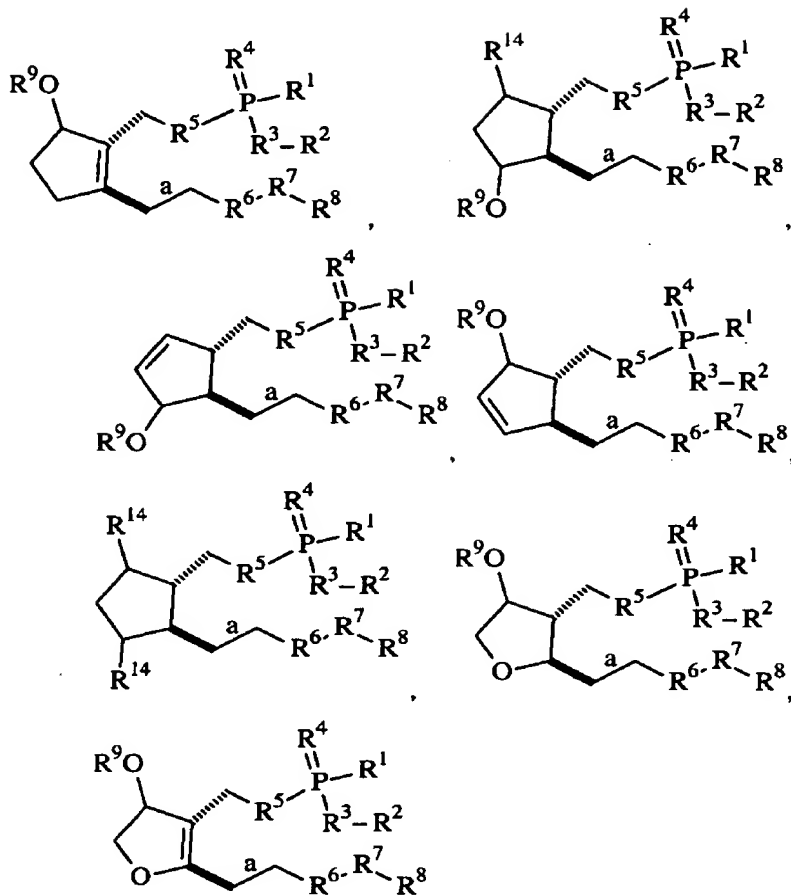


wherein R¹⁴ is independently selected from the group consisting of nil, a hydrogen atom, a halogen atom, a monovalent hydrocarbon group of 1 to 4 carbon atoms, and a monovalent heterogenous group of 1 to 4 member atoms.

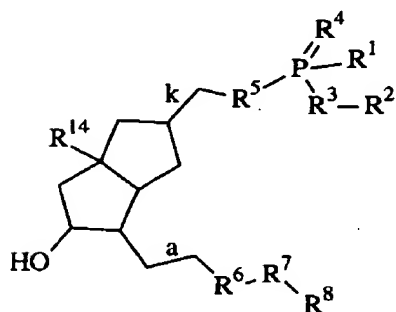
Claim 29. (Canceled)

Claim 30. (Previously Presented) The compound of claim 28, wherein the derivative is a prostaglandin F derivative having a structure selected from the group consisting of:

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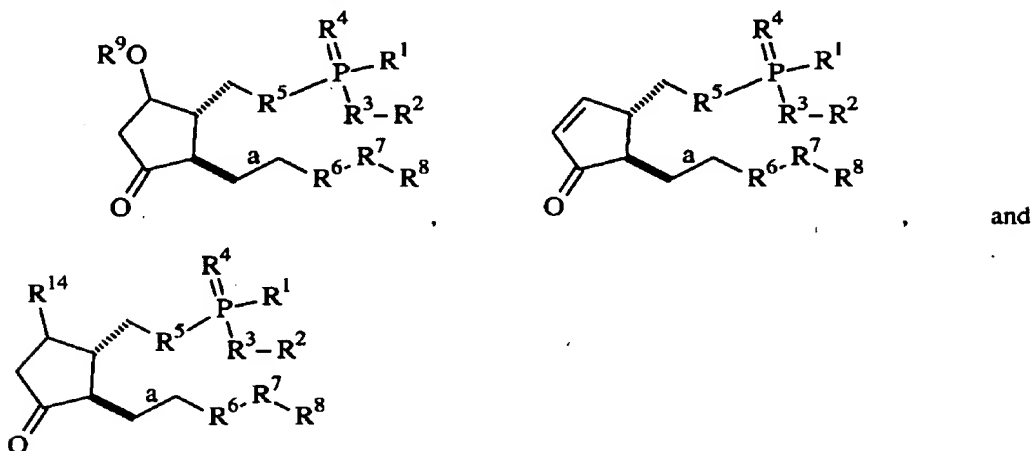


Claim 31. (Previously Presented) The compound of claim 28, wherein the derivative is a prostaglandin I derivative having the structure:

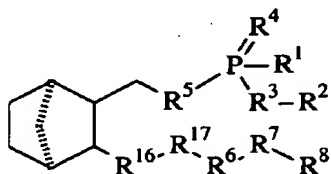


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Claim 32. (Previously Presented) The compound of claim 28, wherein the derivative is a prostaglandin D derivative selected from the group consisting of:



Claim 33. (Previously Presented) The compound of claim 28, wherein the derivative is a thromboxane having the structure:



Claims 34 – 50 (Cancelled)

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